

1. A computer program product encoding a computer program for executing on a computer system a computer process for validating input data received through at least one client-side input control element in a Web page, each client-side input control element being associated with a server-side input control object declared in a server-side resource, the computer process comprising:

detecting a validator declaration in the server-side resource, the validator declaration being associated with a server-side input control object;

generating a server-side validation object having a validation criterion, responsive to the detecting operation; and

evaluating at least a portion of the input data to determine whether the portion of the input data satisfies the validation criterion, the portion of the input data being received through the client-side input control element associated with the server-side input control object.

2. The computer program product of claim 1 wherein the computer process further comprises:

designating a property of the server-side control object as a validation property; associating the server-side validation object with the server-side input control object; and receiving the portion of the input data into the validation property of the server-side input control object,

wherein the evaluating operation comprises evaluating the portion of the input data stored in the validation property against the validation criterion.

3. The computer program product of claim 1 wherein the associating operation comprises:

storing an identifier of the server-side input control object in the server-side validation object.

4. The computer program product of claim 1 wherein the computer process further comprises:

passing the portion of the input data to a server-side process, if the portion of the input data satisfies the validation criterion.

5. The computer program product of claim 1 wherein the computer process further comprises:

withholding the portion of the input data from the server-side process, if the portion of the input data fails to satisfy the validation criterion.

6. The computer program product of claim 1 wherein the input data is received from a client computer system and computer process further comprises:

transmitting to the client computer system an error message indicating a validation failure associated with the portion of the input data, if the portion of the input data fails to satisfy the validation criterion.

7. The computer program product of claim 1 wherein the validation criterion defines a format against which the portion of the input data is evaluated.

8. The computer program product of claim 7 wherein the format is defined by one or more regular expressions.

9. The computer program product of claim 1 wherein the validation criterion defines a requirement that the portion of the input data received through the client-side input control element be different than an initial value.

10. The computer program product of claim 1 wherein the validation criterion defines a required field of the server-side input control object, wherein the portion of the input data is required to populate the required field to be valid.

11. The computer program product of claim 1 wherein the validation criterion defines a validity range against which the portion of the input data is evaluated.

12. The computer program product of claim 1 wherein the validation criterion defines a comparison operation against which the portion of the input data is evaluated.

13. The computer program product of claim 1 wherein the server-side resource is stored on a server computer system and the validation criterion defines a server-side validation function executing on the server computer system to evaluate the portion of the input data.

14. The computer program product of claim 1 further comprising:

generating a validation summary object for displaying on the Web page an error message of one or more validation objects associated with the Web page.

15. The computer program product of claim 1 wherein server-side resource is stored on a server computer system and the computer process further comprises:

rendering client-side validation code associated with the client-side input control element, the client-side validation code being adapted to execute on a client computer system and to determine whether the portion of the input data satisfies the validation criterion before the portion of the input data is transmitted from the client computer system to the server computer system.

16. The computer program product of claim 15 wherein the evaluating operation is performed by the client computer system by executing the client-side validation code rendered by the server-side validation object.

17. The computer program product of claim 15 wherein validation criterion defines a client-side validation script adapted to execute on a client computer system and evaluate the portion of the input data.

18. The computer program product of claim 15 wherein the authoring language code is further adapted to withhold transmission of the portion of the input data from the client computer system to the server computer system, if the portion of the input data fails to satisfy the validation criterion.

19. The computer program product of claim 15 wherein the authoring language code is further adapted to generate an error message, if the portion of the input data fails to satisfy the validation criterion.

20. A server-side validation object for validating input data that is input through at least one client-side input control element in a Web page, each client-side input control element being associated with a server-side input control object declared in a server-side resource, the server-side validation object comprising:

5 a control identifier identifying the server-side input control object with which the server-side validation object is associated, wherein at least a portion of the input data is received into a property of the server-side input control object;

a validation criterion against which the portion of the input data stored in the property of the server-side input control object is evaluated; and

10 a validity indicator indicating whether the portion of the input data satisfies the validation criterion.

21. The server-side validation object of claim 20 further comprising:

an error message displayed if the portion of the input data fails to satisfy the validation criterion.

22. The server-side validation object of claim 20 further comprising:

a validation expression property defining the validation criterion as a regular expression.

23. The server-side validation object of claim 20 further comprising:

an initial value property designating change from an initial value as the validation criterion.

24. The server-side validation object of claim 20 further comprising:

a comparison operator property defining the validation criterion relating to a comparison value.

25. The server-side validation object of claim 20 further comprising:

a range definition defining the validation criterion as a range of valid values.

26. The server-side validation object of claim 20 further comprising:

a client-side validation function defining a validation criterion in a custom validation script executed on a client computer system.

27. The server-side validation object of claim 20 further comprising:

a server-side validation function defining a validation criterion is a custom validation function executed on the server computer system.

28. A method of validating input data received through at least one client-side input control element in a Web page, each client-side input control element being associated with a server-side input control object declared in a server-side resource, the method comprising:

detecting a validator declaration in the server-side resource, the validator declaration

5 being associated with a server-side input control object;

generating a server-side validation object having a validation criterion, responsive to the detecting operation; and

evaluating at least a portion of the input data to determine whether the portion of the input data satisfies the validation criterion, the portion of the input data being received through the client-side input control element associated with the server-side input control object.

29. The method of claim 28 further comprising:

designating a property of the server-side control object as a validation property;

associating the server-side validation object with the server-side input control object; and

receiving the portion of the input data into the validation property of the server-side input

5 control object,

wherein the evaluating operation comprises evaluating the portion of the input data stored in the validation property against the validation criterion.

30. The method of claim 1 wherein the server-side resource is stored on a server computer system and the validation criterion defines a server-side validation function executing on the server computer system to evaluate the portion of the input data.

31. The method of claim 28 further comprising:

rendering client-side validation code associated with the client-side input control element,  
the client-side validation code being adapted to execute on a client computer system and to  
determine whether the portion of the input data satisfies the validation criterion before the  
5 portion of the input data is transmitted from the client computer system to the server computer  
system.

45